

WHAT IS CLAIMED IS:

5.5 A1) 1. An image processing apparatus provided with a capability of carrying out variable magnification of image data, comprising:

a single first-in, first-out memory for carrying out write/read processing of image data;

a variable magnification unit for carrying out variable-magnification processing of image data based on magnification ratio; and

switching means capable of switching a processing order of write/read processing of image data carried out at the first-in, first-out memory and variable-magnification processing carried out at the variable magnification unit.

2. The image forming apparatus of claim 1, wherein the switching means are provided at an input terminal and output terminal of the first-in, first-out memory, and at an input terminal and output terminal of the variable magnification unit.

3. The image processing apparatus of claim 1, wherein the switching means is such that, during image enlargement, variable-magnification processing is carried out at the variable magnification unit following write processing and read processing of image data to and from the first-in,

first-out memory, and

during image reduction, write processing of image data to the first-in, first-out memory is carried out after variable-magnification processing is carried out at the variable magnification unit.

4. The image processing apparatus of claim 1, wherein the variable magnification unit comprises an enlarging variable magnification unit for carrying out variable-magnification processing following write processing and read processing of image data to and from the first-in, first-out memory during image enlargement, and

a reducing variable magnification unit for writing image data to the first-in, first-out memory after variable-magnification processing is carried out during image reduction.

5. An image processing apparatus provided with a capability of carrying out variable magnification of image data, comprising:

a first-in, first-out line memory for storing one line worth of image data; and

a variable-magnification processing section for reading image data from the first-in, first-out line memory a number of times corresponding to magnification ratio.

6. The image processing apparatus of claim 5, wherein the variable magnification unit is such that one line worth of image data written to the first-in, first-out line memory is read a plurality of times during enlargement of image data, and image data written to the first-in, first-out line memory is read intermittently, skipping of data occurring in units of lines, during reduction of image data.

7. An image processing apparatus provided with a capability of carrying out variable magnification of image data, comprising:

a first-in, first-out line memory for storing one line worth of image data; and

a variable-magnification processing section for switching among a plurality of output lines of the first-in, first-out line memory in correspondence to magnification ratio and reading image data.

8. The image processing apparatus of claim 5, further comprising:

two first-in, first-out line memories for respectively storing two mutually adjacent lines of image data,

wherein variable-magnification processing is carried out at the variable-magnification processing section based on

image data read from the two first-in, first-out line
memories.

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